Convection Oven

MODEL MT-200

Operation & Installation Manual

BKI®

Fresh ideas in foodservice equipment

2812 Grandview Dr. Simpsonville, S.C. 29680, USA
864-963-3471 http://www.bkideas.com

Warranty Information

LIMITED ONE YEAR WARRANTY

BKI (The "Company") warrants to the original purchaser that at time of shipment from the Company factory, this equipment will be free from defect in materials and workmanship. Written notice of a claim under this warranty must be received by the Company within ONE YEAR from the date of installation, but no longer than ONE YEAR AND THREE MONTHS from date of shipment from the factory. Defective conditions caused by abnormal use or misuse, lack of or improper maintenance, damage by third parties, alterations by unauthorized personnel, acts of God, failure to follow installation and/or operating instructions, or any other events beyond the reasonable control of the Company will NOT be covered under this warranty. The obligation of the Company under this warranty shall be limited to repairing or replacing (at the option of the Company) any part, with the exception of lamps, fuses, and glass (which are not covered under warranty), which is found defective in the reasonable opinion of the Company. Any part found defective by the Company will be repaired or replaced without charge F.O.B. factory, Simpsonville, South Carolina or F.O.B. authorized BKI Distributor. The Company and/or its authorized representatives will assume the normal replacement labor expense for the defective part for the period of the warranty as stated above, excluding travel and/or other expenses incidental to the replacement of the defective part, where replacement work is performed during standard business hours and not subject to overtime, holiday rates, and/or any additional fees. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR LOSS OF USE, LOSS OF REVENUE OR LOSS OF PRODUCT OR PROFIT OR FOR INDIRECT OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, FOOD SPOILAGE OR PRODUCT LOSS. WARRANTY DOES NOT COVER GLASS BREAKAGE. THE ABOVE WARRANTY IS EXCLUSIVE AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXCLUDED INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

REPLACEMENT PARTS

Any appliance replacement part, with the exception of lamps, fuses, and glass, which proves to be defective in material or workmanship within ninety (90) days of installation will be replaced without charge F.O.B. Factory, Simpsonville, SC or F.O.B. authorized BKI Distributor. The user shall have the responsibility and expense of removing and returning the defective part to the Company as well as the cost of reinstalling the replacement or repaired part.

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Introduction

Thank you for purchasing our convection oven. We feel certain that the oven you have purchased will meet your expectations, and will be a trustworthy assistant in your work for a long time to come, providing performance of the highest levels. You will also receive efficient and timely after-sales technical and operational service. Your oven is quick and easy to install. Nonetheless, please CAREFULLY read this manual, and keep it for future use. We hope you enjoy your work!

NOTICE PLEASE READ THIS ENTIRE MANUAL BEFORE OPERATING THE UNIT. If you have any questions, please contact your BKI Distributor. If they are unable to answer your questions, contact the BKI Technical Service Department, toll free: 1-800-927-6887. Outside the U.S., call 1-864-963-3471.

Safety Precautions

Always follow recommended safety precautions listed in this manual. Below is the safety alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury or property damage.

Safety Signs and Messages

The following Safety signs and messages are placed in this manual to provide instructions and identify specific areas where potential hazards exist and special precautions should be taken. Know and understand the meaning of these instructions, signs, and messages. Damage to the equipment, death or serious injury to you or other persons may result if these messages are not followed.

⚠DANGER This message indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING This message indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

⚠CAUTION This message indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE This message is used when special information, instructions or identification are required relating to procedures, equipment, tools, capacities and other special data.

Safety Standards

- This manual is part of the documentation provided with the oven and contains all required information for proper use and maintenance of the convection oven.
- **Carefully read the user's instructions contained in this manual before turning the oven on.** Special attention must be given to the standards concerning the automatic safety and control devices (see page 8).
- The user must carefully read the instructions in it and keep it where it is accessible to all authorized users
- The oven is of a professional type and must be used **only by qualified personnel**, cooking foods in food service facilities.
- Always turn off the main electrical switch after using the oven, especially during maintenance and repair or in the event of long periods of disuse.
- It is advisable to have the oven checked on a yearly basis by an authorized technical service center.
- The owner of the oven must periodically train their staff on the use of the machines and provide them with safety instructions.
- During cooking, the external parts of the oven (e.g. door glass) may get hot. Be careful when touching them.

Data Plate

The data plate containing the oven characteristics is glued to the back.

Power Supply Terminal Board

The power supply terminal block is inside the right side of the oven. A small data plate positioned near the terminal block states the types of connections which are possible.

Technical Data

Dimensions	No. of Pans or Racks	Power Supply	Power
External dimensions: 27"x21 3/4"x25 1/4" Internal dimensions: 21 1/2"x14 1/2"x16 1/8" Rack dimensions: 1/2 size	4	1Phase, 15 Amp, 240V or 208V, 60Hz, Plug NEMA 6-20P standard	Kw 3.2

Installation

Safety Standards

⚠WARNING

The installer must read this booklet carefully before installing the convection oven.

Installation and subsequent maintenance, cleaning, inspection and repairs must be carried out with the electrical power supply disconnected.

Installation of the oven must be in compliance with current standards in the country of use, otherwise BKI shall not honor the warranty in the event of direct or indirect damage.

Installation, adjustment and assistance are to be carried out by qualified personnel in compliance with current accident prevention legislation in the country of use. The installer must also check for any fire prevention regulations.

BKI shall not be held liable for any damage arising from improper use of the convection oven, unauthorized modifications and anything not covered by this manual.

Environmental Standards

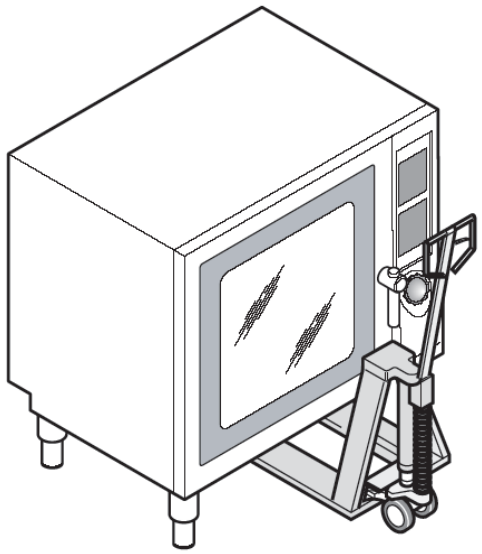
All materials used for packaging are compatible with environmental protection standards. They may be stored without any hazard, or disposed of in accordance with current laws in the country of use. Do not leave the plastic coverings within reach of children or animals as they are potentially hazardous. The plastic components which can be disposed of and recycled are marked as follows:

- POLYETHYLENE: packaging outer film, instructions bag, etc.
- POLYPROPYLENE: clips, etc.

Transport and Unpacking

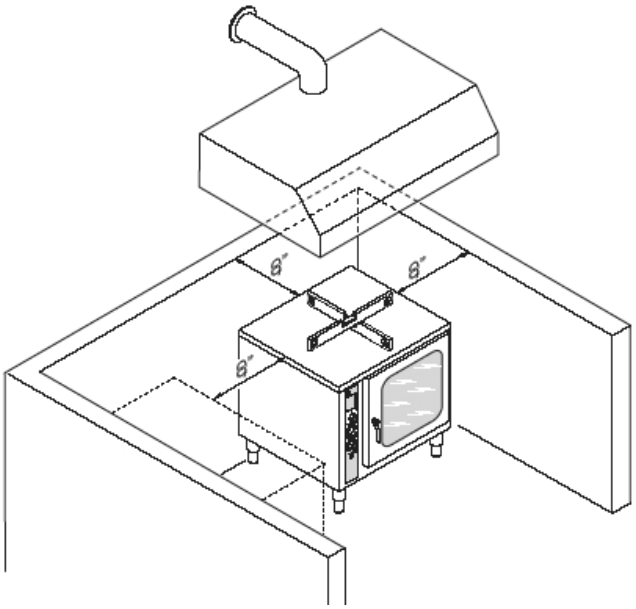
Any movement of the oven must be carried out by suitable means such as a forklift or pallet loader. These must be at least half as large as the convection oven. If it is necessary to store the oven temporarily, keep it in a covered, ventilated place at a temperature from 14°F to 122°F, with humidity no higher than 95%.

Use protective gloves and remove the packaging. Lift the oven with a forklift, remove the base and place it in its intended location. After removing the packaging, immediately check the condition of the oven. If in doubt, do not use the oven. Contact an authorized retailer.

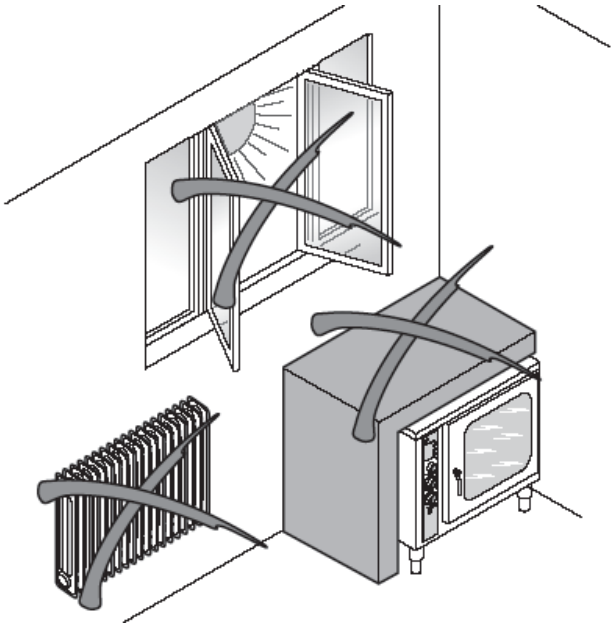


Installation Instructions

1. Place the machine in its place of intended use in compliance with the following instructions:
   - Check that there is enough space (minimum 8”) from any walls or obstacles which may prevent proper air flow.

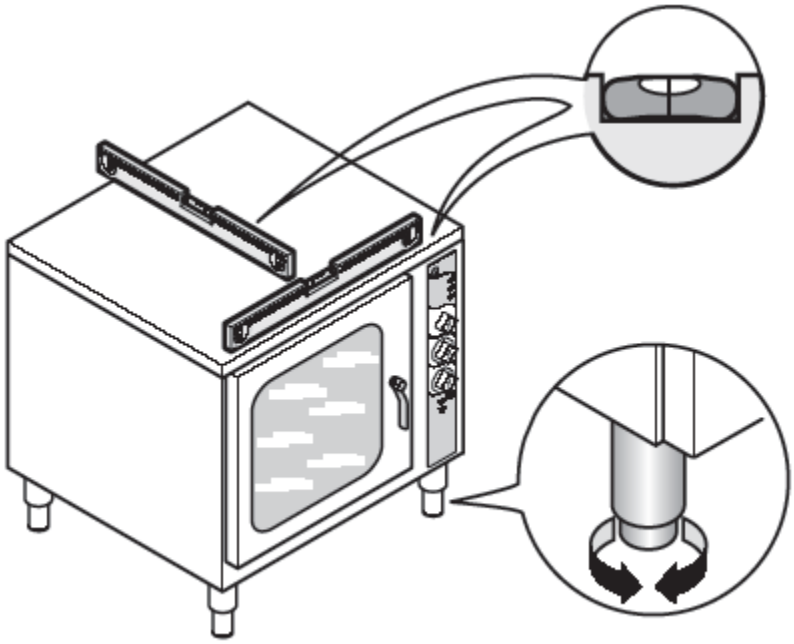


   - Check that maintenance can be performed with a certain freedom of movement.
   - Avoid placing the oven in places with poor air circulation, in places exposed to sunlight, where there are high temperatures, near heat sources or in windy locations.



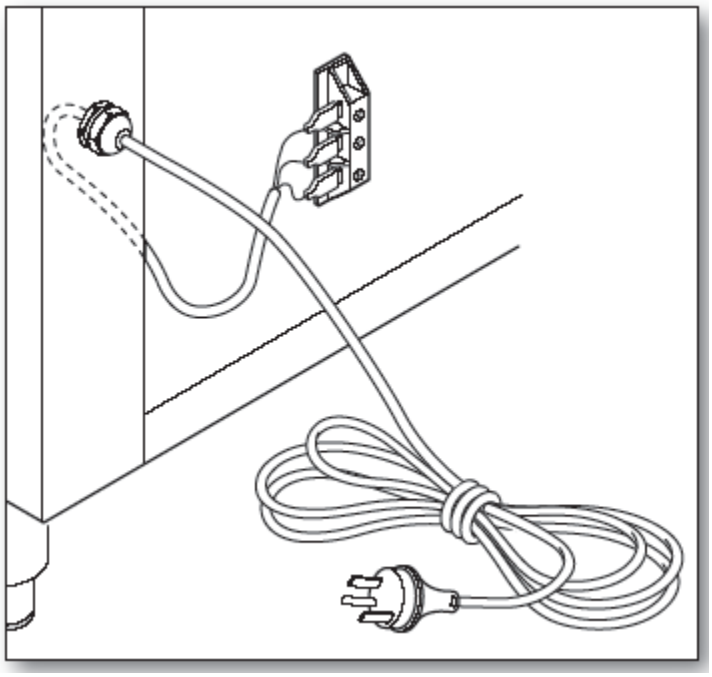
   - Ambient air temperature must not exceed 89°F. Above that temperature, proper operation of the oven cannot be ensured.
   - Always install the oven under a properly operating aspiration hood for the extraction of vapors.
2. Remove the film which covers some parts of the oven before starting to use it.

3. Clean all substances, including glue residue. Do not use abrasive substances.
4. Position the machine so that it is perfectly level and set the height by means of the leveling feet.



Electrical Connections

The oven is setup for operation at the voltage set forth on the technical data plate. All ovens are provided with a power cord.



The flexible cable for connection to the electrical mains must not have characteristics which are less than those of a type with rubber insulation mod. H07RN F and it must have a section which corresponds with that set forth in the section “Technical Data” of the oven. The cable must also be anchored to the frame with the cable clamp, the screw of which can be reached through a hole in the frame. It must in any case

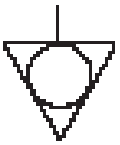
be positioned in such a way that at no point does it reach a temperature which is 122°F greater than the ambient temperature. It must be type SJTO plug 20A 250V P section 3xAWG12.

The connection to the electrical line must be made by placing an automatic switch of sufficient capacity (see “Technical data” of the oven) and with an opening distance between contacts of at least 3 mm.

Also, during operation of the oven, the power supply must not vary from the nominal voltage value by ±10%.

The oven MUST be earthed by means of the terminal which carries the earth symbol on the connection board.

It must also be inserted in an equipotential system (the efficiency of which must be checked in accordance with current standards) using the terminal with the equipotential symbol. It is located near the electrical cable entry on the panel of the oven bottom.



The manufacturer will not be held liable if this accident prevention standard is not adhered to.

Automatic Safety and Control Devices of the Oven

Protection of the Auxiliary Electrical Circuit

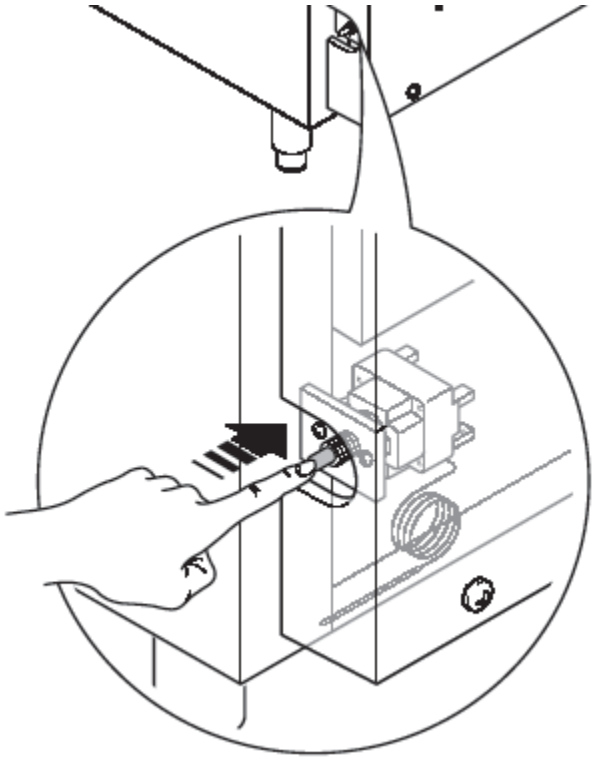
It is checked by the fuses positioned on a terminal block at the line entry.

Protection of the Chamber Fan

A remote switch stops the fan motor in the event of a malfunction or overload. It is located behind the oven and must be reset manually. When it cuts in, it stops the motor and shuts off the heating elements.

Oven Chamber Safety Thermostat

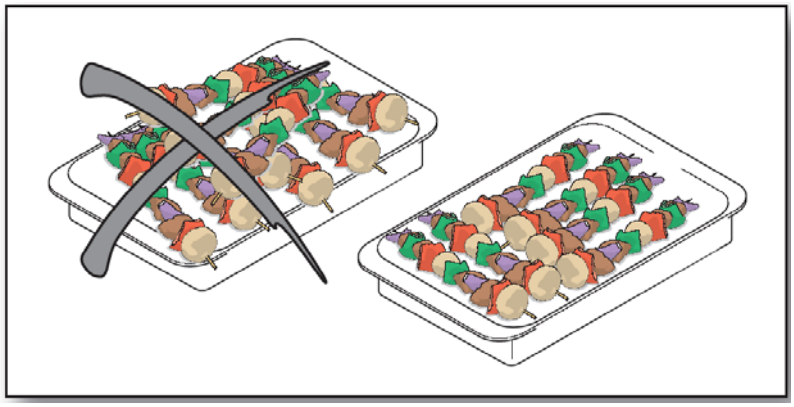
The safety thermostat disconnects the heating elements if the temperature in the oven chamber is too high (644°F). It must be reset manually. If it activates, technical service must be notified. All components are protected by the following type of fuse: **CLASS CC,G 600V 20A.**



Operation

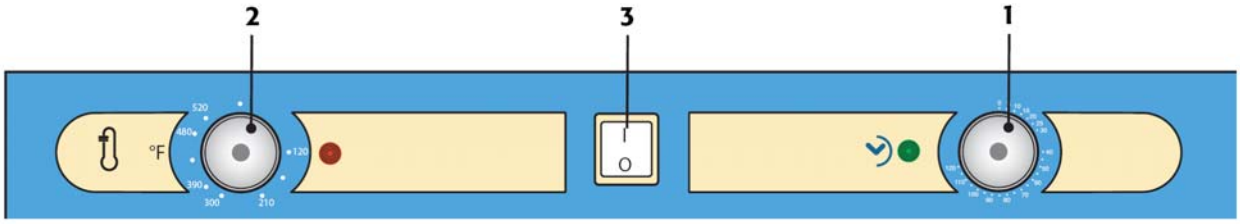
General Instructions for Use

- The oven may be used to bake creams, cookies, cakes, sauces and pizza, for au gratin cooking and for defrosting frozen food convection ovens.
- Avoid adding salt to foods in the cooking chamber.
- Try to distribute foods evenly in the pans, avoiding accumulations.



- Between one level and the next there must be a space of at least 1 1/2". Hot air must be able to circulate both above and below the food in order for it.
- Do not use pans with sides that are higher than necessary. The sides create a barrier to air circulation.
- When using the oven for the first time, it is advisable to run it empty at maximum temperature for about an hour. This will eliminate any unpleasant odors from protective lubricants used in the factory.
- Leave room between dishes on the same level.
- Preheat the oven. It is always better to place the food in a pre-heated oven.
- During cooking, racks and pans reach very high temperatures. Use caution to prevent burns.

Controls and Indicators



Key #	Control	Description
1	TIME SETTING KNOB	Sets cooking time from 0 - 120 minutes or to continuous operation.
2	TEMPERATURE SETTING KNOB	Sets chamber temperature from 50 to 520°F.
3	ON/OFF MAIN SWITCH	Energizes/de-energizes the oven.

Start-Up and Use

1. To start the oven, press the main switch (3) ON/OFF.
2. Set the cooking time by turning the time setting knob (1).
3. Then use knob (2) to set the desired cooking temperature. If knob (2) is left in position ‘0’, only the light and fan will operate, and the oven chamber will not heat up.

Switching Off

1. Cooking ends automatically when the cooking time set on knob (1) has expired.
2. Nonetheless, turn all knobs to “O” and turn off the main switch (3) ON/OFF.

Maintenance

⚠CAUTION Failure to comply with the maintenance below could result in a serious accident.

⚠WARNING Electrocution, equipment failure or property damage could result if an unlicensed electrician performs electrical repair. Ensure that a licensed electrician performs electrical repair.

Routine Maintenance

⚠DANGER Before performing maintenance, unplug the oven.

During cleaning, use protective gloves, mask and garments as required by standards.

At the end of each workday clean the inside of the oven with appropriate convection ovens following the suggestions of your supplier. Do not use corrosive or acidic convection ovens, or convection ovens which are not suitable for this type of cleaning.

To make cleaning easier, remove the lateral diffusers by lifting them slightly so they are free of the holding pegs.

Clean the stainless steel parts daily with lukewarm soapy water, and rinse thoroughly. Then dry.

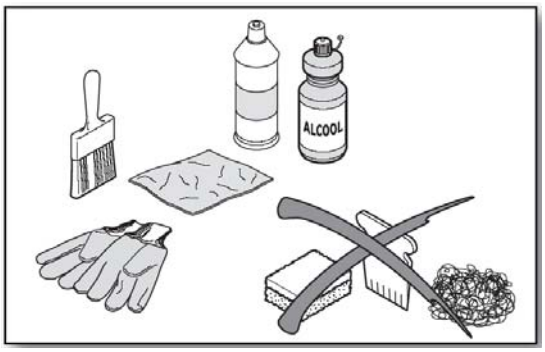
Absolutely do not clean the stainless steel with steel wool or common steel brushes, since they may leave ferrous particles which may oxidize, thus causing rust spots.

Stainless steel wool can be used in the direction of the satin finish.

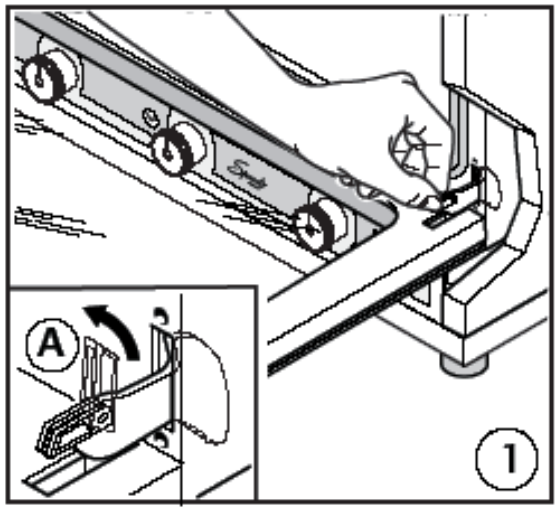
If the oven is not used for long periods, use a cotton ball to lay a coat of petroleum jelly on all surfaces; also regularly ventilate the rooms.

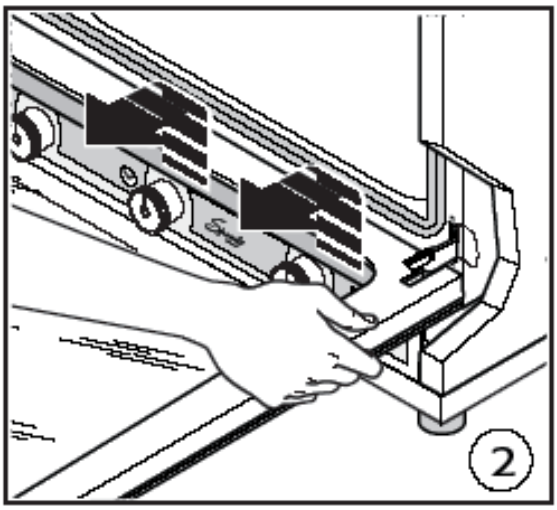
Oven Chamber Cleaning

- Remove any food and/or fat residues from the oven chamber after each cooking cycle. The combination of fat, heat and forced circulation dirties the oven. Only by cleaning the oven daily is it possible to avoid difficult cleaning operations.
- To clean the oven, use a suitable de-greasing convection oven (non-foaming) as suggested by your detergent retailer. A spray is preferable to reach behind the protection shield. Do not use abrasive or corrosive substances, scrapers or steel wool.



- To make cleaning the oven chamber easier, it is possible to remove the door completely in a few simple steps as shown in figure 13. Follow the sequence in reverse order to re-install the door.



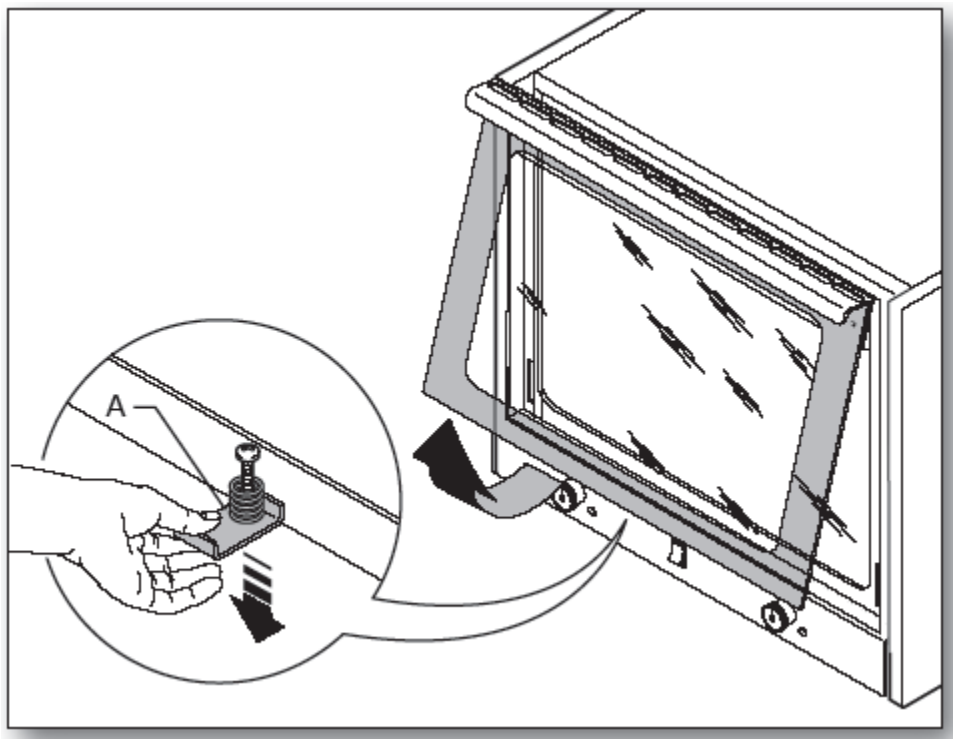


- Adhere to safety instructions included with cleaning convection ovens for the protection of skin and eyes. When cleaning, proceed as follows:

    1. Heat the oven chamber to approx.158 - 176°F and clean it using the de-greasing detergent in the recommended quantities.
    2. Close the oven and heat it.
    3. Let the cleansing convection oven act for 20-30 minutes and then turn the oven off.
    4. Slowly open the oven with care to avoid eye and skin damage.
    5. Remove the racks or pans from the oven, remove the rack supports attached to the side and shield, remove the shield by loosening the fastening screws. Wash separately (they can also be placed in the dishwasher).
    6. Clean and rinse the oven and fan with water.
    7. Re-install the shield and the rack supports.
    8. Dry the oven by turning the CONVECTION cycle on.

Cleaning the Door Glass

To reach the inside glass of the oven door, use the lower latch “A”, open outer glass “B” raising it from the bottom upwards. This will make it possible to get inside the glass for normal cleaning. Upon completion, lose the external glass by pushing it slowly downwards **until the click is heard of insertion in component “A”**.



Cleaning the Fan

Periodically check the condition of the fan. Make sure that there is not too much grease on the blades since it may slow motor rotation (which in turn may lead to overheating) and uneven heat distribution (resulting in uneven cooking).

What to Do In Case of a Breakdown or Long Periods of Inactivity

1. Switch off the main electrical switch.
2. Set all control panel knobs to zero.
3. Inform technical assistance (only in case of a malfunction).
4. Clean the oven inside and out.

Troubleshooting

Refer to the table below for troubleshooting information.

PROBLEM	**PROBABLE CAUSE**	**REMEDY**
Oven does not turn on	Unit unplugged	Check the plug connection and reconnect if necessary
	Fuses	Check the fuses and replace them if necessary
	Cables/terminal block	Check the cables connection for loose wire and reconnect if necessary
	Switch	Check the switch and the voltage at the inlet and outlet. Replace switch if necessary
	Safety thermostat	Check the safety thermostat and push the red button
Oven does not warm up	Resistor contactor	Check the voltage at the inlet and outlet of the contactor and replace if necessary
	Heating element burn out	Replace the heating element
		Check the temperature with a manual thermometer and if necessary replace the thermostat
Lights not lit	Switch/lights	Check the switch and the lights and replace if necessary
Motors do not work	Motor contactor/Motor	Check the voltage at the inlet and out-let of the contactor. Check the motor and replace the contactor or the motor if necessary
Oven suddenly stops	Safety thermostat	Push the red button on the thermostat
	Short circuit	Check the fuses and replace them if necessary, if the failure persists check all parts with an appropriate tester in order to find which is the part to replace

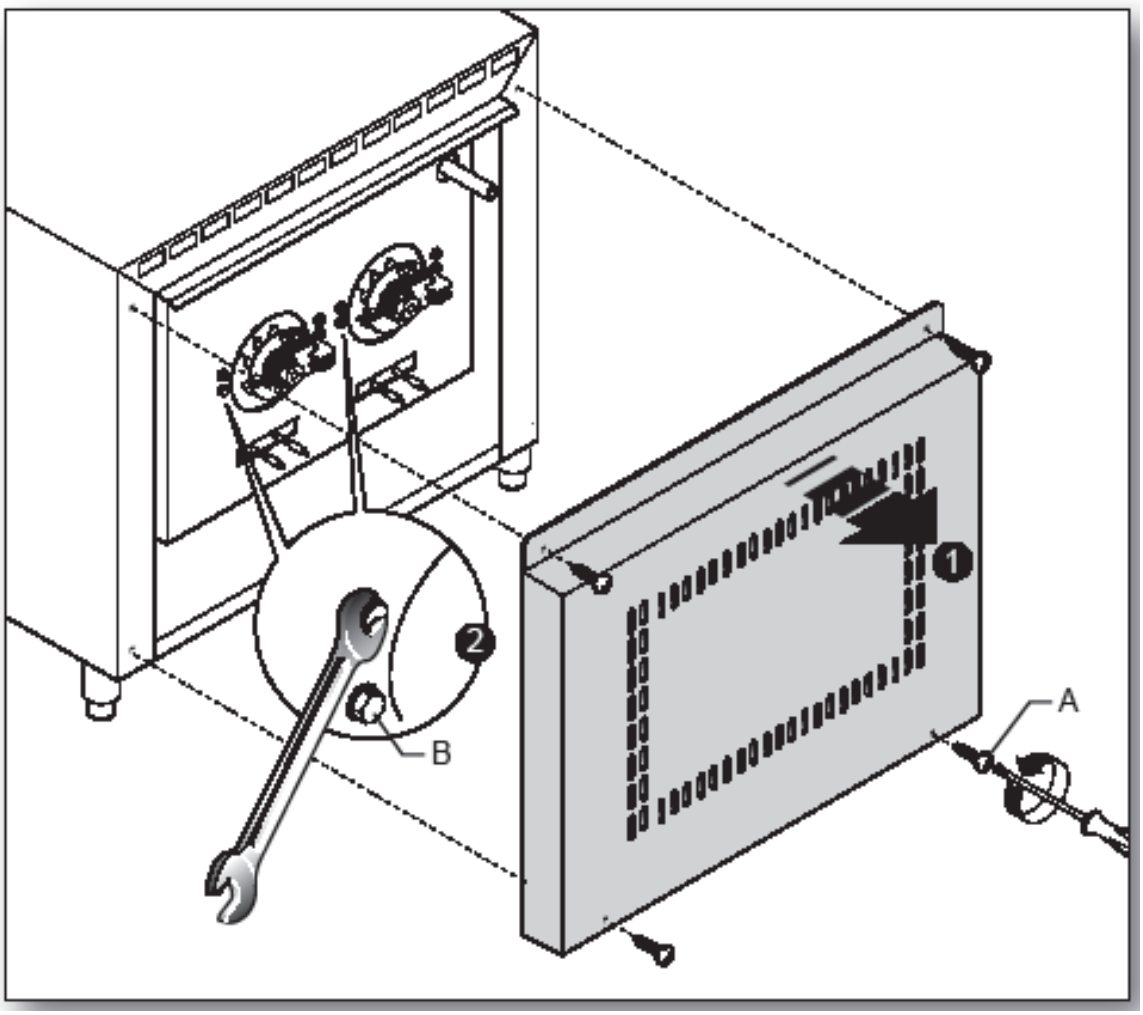
Repair Procedures

⚠WARNING Replacement of spare parts must be performed exclusively by qualified and AUTHORIZED personnel.

Turn the main switch OFF and unplug the convection oven before carrying out any spare parts replacement.

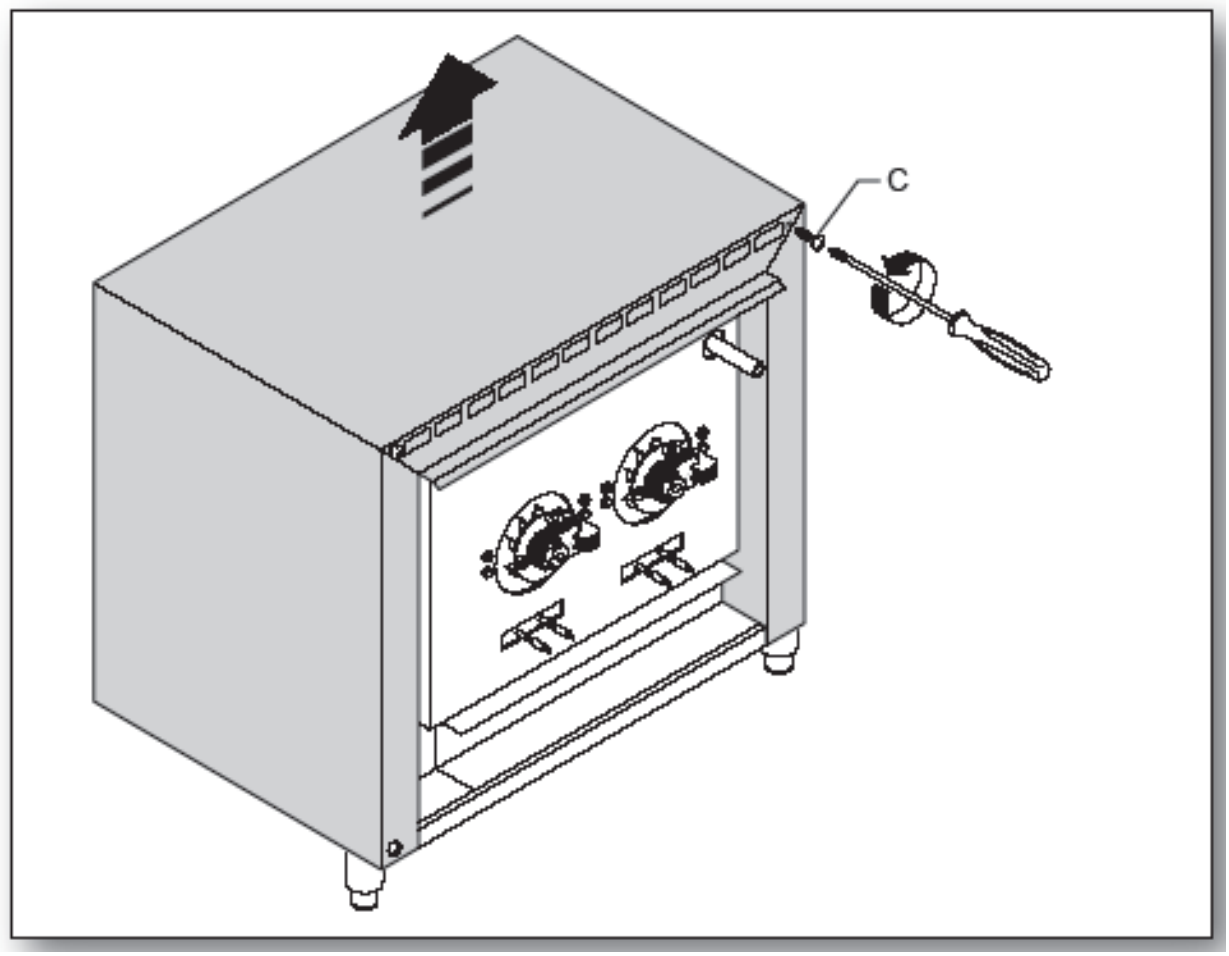
Replacement of Motors

It is necessary to remove the back by removing the 4 fastening screws “A” and the 4 screws “B” that support them.



Outer Coverings

Remove the 4 rear fastening screws “C”.



Bulb, Heating Element and Motor Fan

It is necessary to access the inside of the oven, first removing pans, racks and related supports, and then the conveyor.

30W Motor

Remove the fan by following the procedure outlined above, disconnect the motor from the electrical system, loosen the 4 screws and replace the motor. Before re-installing the fan, check that there is no friction between the motor shaft and the ring nut located inside the oven. If there is, loosen the fixing screws of the ring nut and re-tighten them after eliminating the friction and having centered the ring nut on the motor shaft.

Heating Elements

Disconnect the heating element connections outside the oven chamber. Loosen the heating elements from inside the oven chamber and replace them.

Electro-Mechanical Controls

All the electric components are visible. To replace them it is necessary to disconnect the attachments, remove the knobs, unscrew the fastening screws or nuts and replace them.

NOTICE

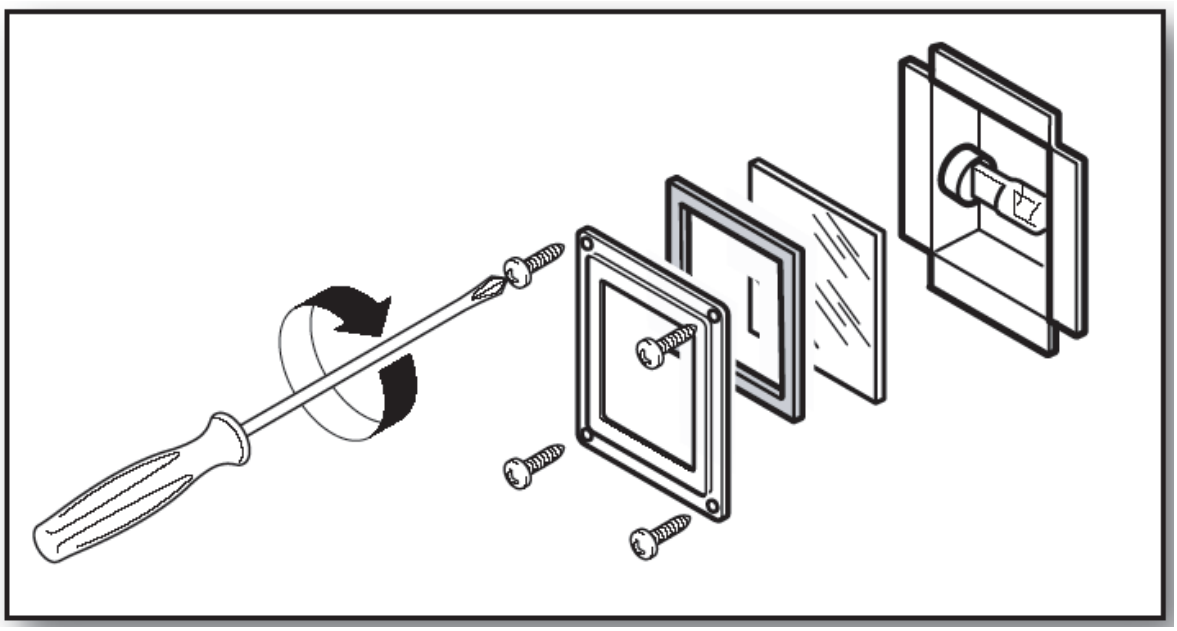
For the adjustable thermostat, safety thermostat and thermometer, unscrew the guard and the supports and remove the bulbs. Once they have been replaced use high-temperature resistant silicone to seal the holes. After replacement, reseal the holes for the passage of the capillaries with high temperature silicone.

Chamber Face Gasket

It is simply pressed in. Pull to remove it. NB: Before removing it, note its position carefully so as to place the new one in the same position.

Replacement of Chamber Light and Glass Gasket

Check and replace the glass gasket and any lights in the oven chamber.



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